

## ABSTRACT

### ADJUSTMENT OF THE DETECTION, TRANSMISSION AND/OR RECEPTION PARAMETERS OF AN RFID READER AS A FUNCTION OF AMBIENT ELECTROMAGNETIC NOISE

There is described a method for adjusting the detection, transmission and/or reception parameters (DET,  $G_{Tx}$ ,  $G_{Rx}$ ) of a radiofrequency reader (10) of an electronic radiofrequency identification system as a function of the ambient electromagnetic noise. This method includes at least one step of measuring, via the radiofrequency  
5 reader, the ambient electromagnetic noise level, and a step of adjusting the detection, transmission and/or reception parameters of the radiofrequency reader on the basis of the measured ambient electromagnetic noise level. Preferably, this method further includes a step of measuring the response of a reference transponder (30) placed at least temporarily in the interrogation field of the antenna (20) associated with the  
10 radiofrequency reader, this reference transponder (30) having similar characteristics to the characteristics of the transponders to be identified. The adjustment step also includes adjustment of the detection, transmission and/or reception parameters of the radiofrequency reader on the basis of the measured response of the reference transponder (30). There is also described an electronic radiofrequency identification  
15 system for implementing this method.